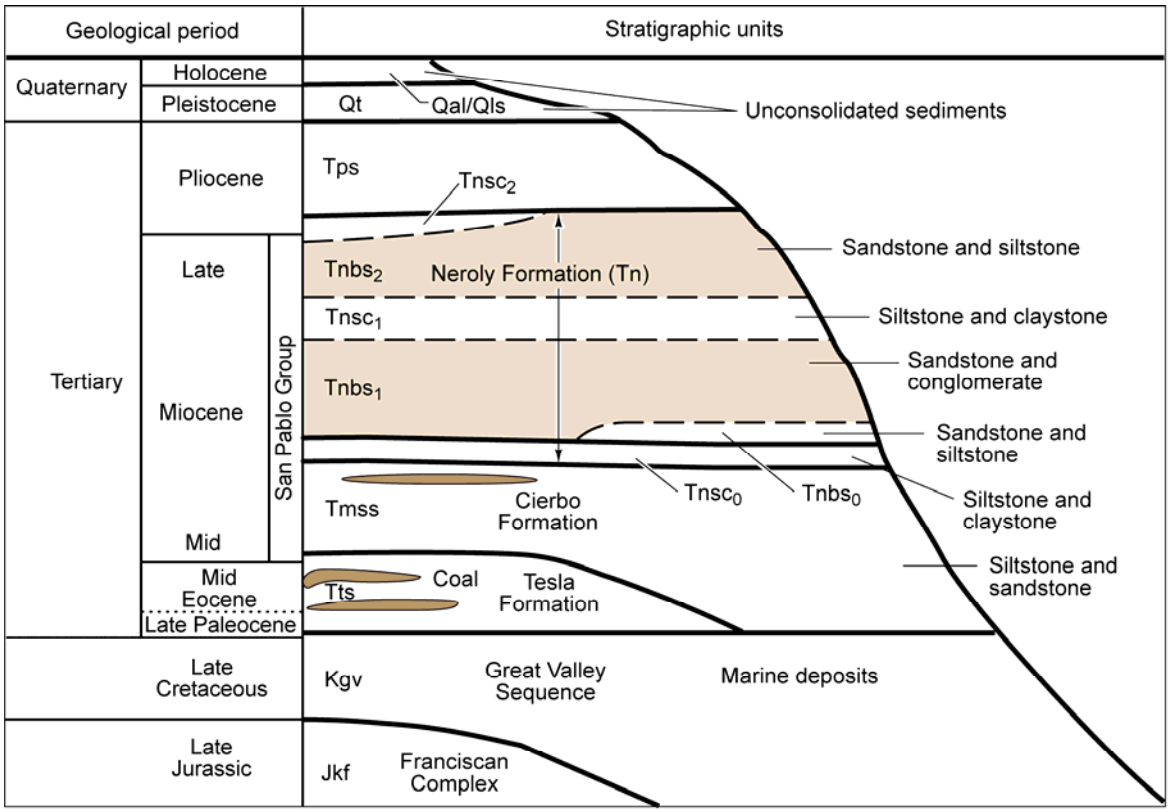
ATTACHMENT 3

Site 300 stratigraphy and hydrologic characteristics



Hydrologic characteristics of stratigraphic units

Quaternary alluvium and underlying decomposed bedrock (Qal/WBR): Occurs in ravines and valley bottoms throughout Site 300. It is perennially saturated beneath Corral Hollow Creek, in Doall Ravine, and in southern Elk Ravine in the vicinity of Building 812. Groundwater also occurs in Qal/WBR in the Pit 7 Complex during the winter rainy season or during extended periods of higher than normal rainfall. Groundwater in this unit is unconfined.

Quaternary landslide deposits (Qls): Thin zones of unconfined groundwater occur locally beneath the Building 851 and Building 854 areas.

Quaternary terrace alluvium (Qt): Present and saturated at Pit 6, the GSA, and the Building 832 Canyon area; some of the groundwater occurrences are ephemeral.

Pliocene non-marine sediments (Tps/Tpsg): Saturated in the Building 833 and 834 areas and the Explosives Process Area. This bedrock unit is generally present only on hilltops. Where present, groundwater is typically unconfined, perched, discontinuous, and ephemeral. The exception to this condition exists in the Explosives Process Area, where the extent of saturation is significant.

Neroly Formation (Tn): Most extensive and saturated bedrock strata beneath Site 300. Unconfined to artesian conditions may exist. The formation is subdivided into the following units:

- Upper claystone/siltstone unit ($Tnsc_2$): Absent beneath much of Site 300. Saturated beneath the Building 834 area.
- Upper blue sandstone unit ($Tnbs_2$): Absent beneath much of Site 300. Saturated beneath Explosives Process Area.
- Lower siltstone/claystone unit ($Tnsc_1$): Saturated beneath Explosives Process Area, and Building 832 Canyon.
- Lower blue sandstone unit of the Neroly Formation ($Tnbs_1$): Primary water-bearing strata within the Neroly Formation. Saturated throughout Site 300, except in northeast portion, where it is absent. Fine-grained siltstone and claystone interbeds act as aquitards, confining layers, or perching horizons.
- Basal sandstone unit ($Tnbs_0$): Saturated beneath the Pit 7 Complex, Pit 2, and Building 801/Pit 8 areas.
- Basal siltstone/claystone unit ($Tnsc_0$): Saturated beneath the Building 854 area, and Building 845/Pit 9.

Cierbo Formation (Tmss): Groundwater occurs beneath Doall Ravine, the Building 850, 851, and 854 areas and the East Firing Area. The continuity of saturation between the northwest and southeast areas of Site 300 is undetermined. Groundwater occurs under unconfined to artesian conditions. Where saturation does not occur, fine-grained siltstone and claystone interbeds may act as aquitards, confining layers, or perching horizons.

Tesla Formation (Tts): Only found to contain groundwater immediately south of the Site 300 Pit 6 area.

Great Valley Sequence (Kgv): Groundwater not found in the few wells at Site 300 that penetrate the upper portion of the Great Valley Sequence.

Franciscan Complex (Jkf): No wells at Site 300 penetrate the Franciscan Complex.